



## CONTENTS

(Full texts are incorporated in CJELSEVIER, a file in the Chemical Journals Online database available on STN International; Abstracted, indexed in: Aluminium Abstracts; Anal. Abstr.; Biol. Abstr.; BIOSIS; Chem. Abstr.; Curr. Contents Phys. Chem. Earth Sci.; Engineered Materials Abstracts; Excerpta Medica; Index Med.; Life Sci.; Mass Spectrum. Bull.; Material Business Alerts; Metals Abstracts; Sci. Citation Index)

### Metabolomic study

- A metabolomic investigation of splanchnic metabolism using  $^1\text{H}$  NMR spectroscopy of bovine blood plasma  
H.C. Bertram, N.B. Kristensen (Tjele, Denmark), A. Malmendal, N.C. Nielsen (Aarhus, Denmark), R. Bro (Frederiksberg, Denmark),  
H.J. Andersen (Tjele, Denmark) and D.L. Harmon (Lexington, KY, USA) ..... 1

### Enantioseparation

- Structure-enantioselectivity relationship of hypnotic-sedative 1,4-disubstituted piperazine derivatives on cellulose tris(4-methylbenzoate) chiral stationary phase  
Z. Chilmonczyk (Warsaw, Poland and Białystok, Poland), H. Ksycińska, M. Lisowaka-Kuźmicz, A. Jończyk, M. Mazgajska, M. Jaróńczyk,  
A. Strzelczyk (Warsaw, Poland) and H.Y. Aboul-Enein (Riyadh, Saudi Arabia) ..... 7
- Enantioseparation of alkyl tropate by high performance liquid chromatography using (*2R, 3R*)-di-*n*-propyl tartrate  
H. He, X. Xu, D. Zhang and J. Chen (Hangzhou Yuquan, PR China) ..... 15

### Liquid chromatography

- Detection of saponins in extract of *Panax notoginseng* by liquid chromatography-electrospray ionisation-mass spectrometry  
L. Li (Changchun, PR China), R. Tsao (Guelph, Canada), J. Dou, F. Song, Z. Liu and S. Liu (Changchun, PR China) ..... 21
- Robustness tests on the United States Pharmacopoeia XXVI HPLC assay for ginsenosides in Asian and American ginseng using an experimental design  
Y.-G. Li, H. Liu (Shanghai, China), Y.V. Heyden (Brussels, Belgium), M. Chen, Z.-T. Wang and Z.-B. Hu (Shanghai, China) ..... 29
- HPLC separation of fullerenes on the stationary phases of two Lewis bases modified magnesia-zirconia  
Q.-W. Yu, Y.-Q. Feng, Z.-G. Shi and J. Yang (Wuhan, PR China) ..... 39
- Stress degradation studies on etamsylate using stability-indicating chromatographic methods  
N. Kaul, H. Agrawal, A. Kakad, S.R. Dhaneshwar and B. Patil (Maharashtra, India) ..... 49
- Classification and replacement test of HPLC systems using principal component analysis  
P. Forlay-Frick, J. Fekete and K. Héberger (Budapest, Hungary) ..... 71

### Food analysis

- Analysis of heterocyclic amines in chicken by liquid chromatography with electrochemical detection  
E. Bermudo, V. Ruiz-Calero, L. Puignou and M.T. Galceran (Barcelona, Spain) ..... 83
- Comparison of milk residue profiles after oral and subcutaneous administration of benzimidazole anthelmintics to dairy cows  
L. Moreno, F. Imperiale, L. Mottier, L. Alvarez and C. Lanusse (Tandil, Argentina and Técnicas, Argentina) ..... 91

### Chemiluminescence

- Investigations on the antioxidant activity of fruit and vegetable aqueous extracts on superoxide radical anion using chemiluminescence techniques  
T. Triantis, A. Stelakis, D. Dimotikali and K. Papadopoulos (Athens, Greece) ..... 101
- Animal tissue-based chemiluminescence sensing of uric acid  
F. Wu (Chongqing, PR China), Y. Huang and Q. Li (Chongqing, PR China) ..... 107
- Chemiluminescent determination of vanadium(IV) using a cinchomeronic hydrazide- $\text{H}_2\text{O}_2$  system and flow injection analysis  
J.A. Pradana Pérez, J.S.D. Alegria, P.F. Hernando and A.N. Sierra (Madrid, Spain) ..... 115
- Selective determination of ammonium in water based on HPLC and chemiluminescence detection  
S. Meseguer-Lloret, C. Molins-Legua and P. Campins-Falcó (Valencia, Spain) ..... 121
- Determination of hydroxyproline in rat urine by high-performance liquid chromatography with electrogenerated chemiluminescence detection using tris(2,2'-bipyridyl) ruthenium(II)  
T. Ikehara, N. Habu, I. Nishino and H. Kamimori (Osaka, Japan) ..... 129

**Fluorescence**

Application of multivariate curve resolution for the study of folding processes of DNA monitored by fluorescence resonance energy transfer P. Kumar, K. Kanchan (Delhi, India), R. Gargallo (Barcelona, Spain) and S. Chowdhury (Delhi, India) . . . . .	135
Flow injection on-line oxidizing fluorometry coupled to dialysis sampling for the study of carbamazepine–protein binding Z.-Q. Zhang and G.-X. Liang (Xi'an, PR China) . . . . .	145
Fluorescence characteristics of several whey samples subjected to different treatments and conditions J.A. Murillo Pulgarín, A.A. Molina and M.T.A. Pardo (Ciudad Real, Spain) . . . . .	153

**Visible spectrophotometry and light scattering**

On the use of a small synthetic calibration set for the simultaneous spectrophotometric multivariate determination of $\text{Ca}^{2+}$ and $\text{Mg}^{2+}$ in ground-water: chemical and spectral considerations M.A. Gil Libarona and F.A. Ihón (Buenos Aires, Argentina) . . . . .	159
Study of the interaction of nucleic acid with europium(III) and CTMAB and determination of nucleic acids at nanogram levels by the second-order scattering F. Ding, H. Zhao, S. Chen, J. Ouyang and L. Jin (Beijing, PR China) . . . . .	171

**Flow systems**

Manipulate fluid in microchannels with thermo-responsive film T. Saitoh, A. Sekino and M. Hirade (Nagoya, Japan) . . . . .	179
Sequential injection system incorporating a micro-extraction column for automatic fractionation of metal ions in solid samples. Comparison of the extraction profiles when employing uni-, bi-, and multi-bi-directional flow plus stopped-flow sequential extraction modes R. Chomchoei (Bangkok, Thailand), M. Miró (Illes Balears, Spain), E.H. Hansen (Lyngby, Denmark) and J. Shiowatana (Bangkok, Thailand) . . . . .	183

**Imprinted polymers**

Molecularly imprinted polymer thin films on quartz crystal microbalance using a surface bound photo-radical initiator T. Piacham (Lund, Sweden and Bangkok, Thailand), Å. Josell (Lund, Sweden), H. Arwin (Linköping, Sweden), V. Prachayawasitkul (Bangkok, Thailand) and L. Ye (Lund, Sweden) . . . . .	191
Investigation of different polymerization methods on the analytical performance of palladium(II) ion imprinted polymer materials S. Daniel, P. Prabhakara Rao and T. Prasada Rao (Kerala, India) . . . . .	197

**Extraction techniques**

On-line dynamic two-dimensional admicelles solvent extraction coupled to electrothermal atomic absorption spectrometry for determination of chromium(VI) in drinking water J. Nan and X.-P. Yan (Tianjin, PR China) . . . . .	207
Evaluation of commercial C18 cartridges for trace elements solid phase extraction from seawater followed by inductively coupled plasma-optical emission spectrometry determination J. Otero-Romani, A. Moreira-Piñeiro, A. Bermejo-Barrera and P. Bermejo-Barrera (Santiago de Compostela, Spain) . . . . .	213
Steric effects of polymethylene chain of 4-acylbis(pyrazolones) on the solvent extraction of trivalent lanthanoids: synergistic effect with mono and bifunctional neutral organophosphorus extractants R. Pavithran and M.L.P. Reddy (Thiruvananthapuram, India) . . . . .	219
An investigation into the retention profile and kinetics of sorption of the ternary complex ion associate of uranyl ions with crown ether and picric acid by the polyurethane foams M.S. El-Shahawi (Mansoura, Egypt), A.M. Othman (Menoufia, Egypt), H.M. Nassef and M.A. Abdel-Fadeel (Mansoura, Egypt) . . . . .	227
Determination of essential oil in a traditional Chinese medicine, <i>Fructus amomi</i> by pressurized hot water extraction followed by liquid-phase microextraction and gas chromatography–mass spectrometry C. Deng, N. Yao, A. Wang and X. Zhang (Shanghai, China) . . . . .	237
Application of continuous-flow liquid-phase microextraction to the analysis of volatile halohydrocarbons in water Y. Li, T. Zhang and P. Liang (Hubei, PR China) . . . . .	245
On-line ion pair solid-phase extraction of electrokinetic multicommunication for determination of trace anion surfactants in pond water Y.-Y. Hu, Y.-Z. He, L.-L. Qian and L. Wang (Anhui, PR China) . . . . .	251
Semi-permeable membrane device efficiency for sampling free soluble fraction of polycyclic aromatic hydrocarbons C. Miège, C. Ravelet (Lyon, France and France), J.P. Croué (Poitiers, France) and J. Garric (Lyon, France and France) . . . . .	259

**Electroanalytical chemistry**

Pulsed amperometric detection of sulfide, cyanide, iodide, thiosulfate, bromide and thiocyanate with microfabricated disposable silver working electrodes in ion chromatography J. Cheng, P. Jandik and N. Avdalovic (Sunnyvale, CA, USA) . . . . .	267
Solid-state electroanalytical characterization of the nonaqueous proton-conducting redox gel containing polyoxometallates A. Lewera, G. Zukowska, K. Miecznikowski, M. Chojak, W. Wieczorek and P.J. Kulesza (Warsaw, Poland) . . . . .	275

**Mass spectrometry**

Characterization of microorganisms by thermogravimetric analysis–mass spectrometry A.P. Snyder, A. Tripathi, J.P. Dworzanski, W.M. Maswadeh and C.H. Wick (Aberdeen, MD, USA) . . . . .	283
Microwave-assisted volatilization of silicon fluorides for the determination of trace impurities in high purity silicon powder and quartz by ICP-MS R.-L. Ueng, S.-J. Jiang, C.-C. Wan and A.C. Sahayam (Kaohsiung, Taiwan) . . . . .	295

**Erratum**

Erratum to "Fast matrix digestion with hot ethanolic alkali plus pyrogallol for polychlorinated dibenzo-*p*-dioxins, polychlorinated dibenzofurans and coplanar polychlorinated biphenyls analysis in biological samples". [Analytica Chimica Acta 509 (2004) 21–26]  
H. Otaka (Saitama, Japan) and S. Hashimoto (Ibaraki, Japan) ..... 301

**Author Index** .....

**Calendar of forthcoming meetings** ..... N1



This journal is part of **ContentsDirect**, the *free* alerting service which sends tables of contents by e-mail for Elsevier books and journals. You can register for **ContentsDirect** online at: <http://contentsdirect.elsevier.com>

---



Full text of this journal is available, on-line from **ScienceDirect**. Visit [www.sciencedirect.com](http://www.sciencedirect.com) for more information.

---